

ABSTRACT

A computer system may include one or more hosts and a plurality of data storage devices for providing multihop system calls. The data storage devices are interconnected and also connected to the one or more hosts. The connections may be direct or indirect. Each data storage device classifies a data operation as a system call, a remote system call, or a multihop system call. If an operation is classified as a multihop system call by a first data storage device, a portion of the data associated with the multihop system call is removed and a second portion of the data is forwarded to a second data storage device as specified by a connection identifier included in the first portion. A multi-execute command may be issued by a host system causing one or more commands to be executed on one or more processors at points in a communication path in a forward and/or reverse direction when traversing the communication path.